

Análisis espacial con



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LATIN AMERICA
SALTA 2022

Gabriel De Luca

Dependencias



GeoPandas



Shapely

matplotlib

Fiona

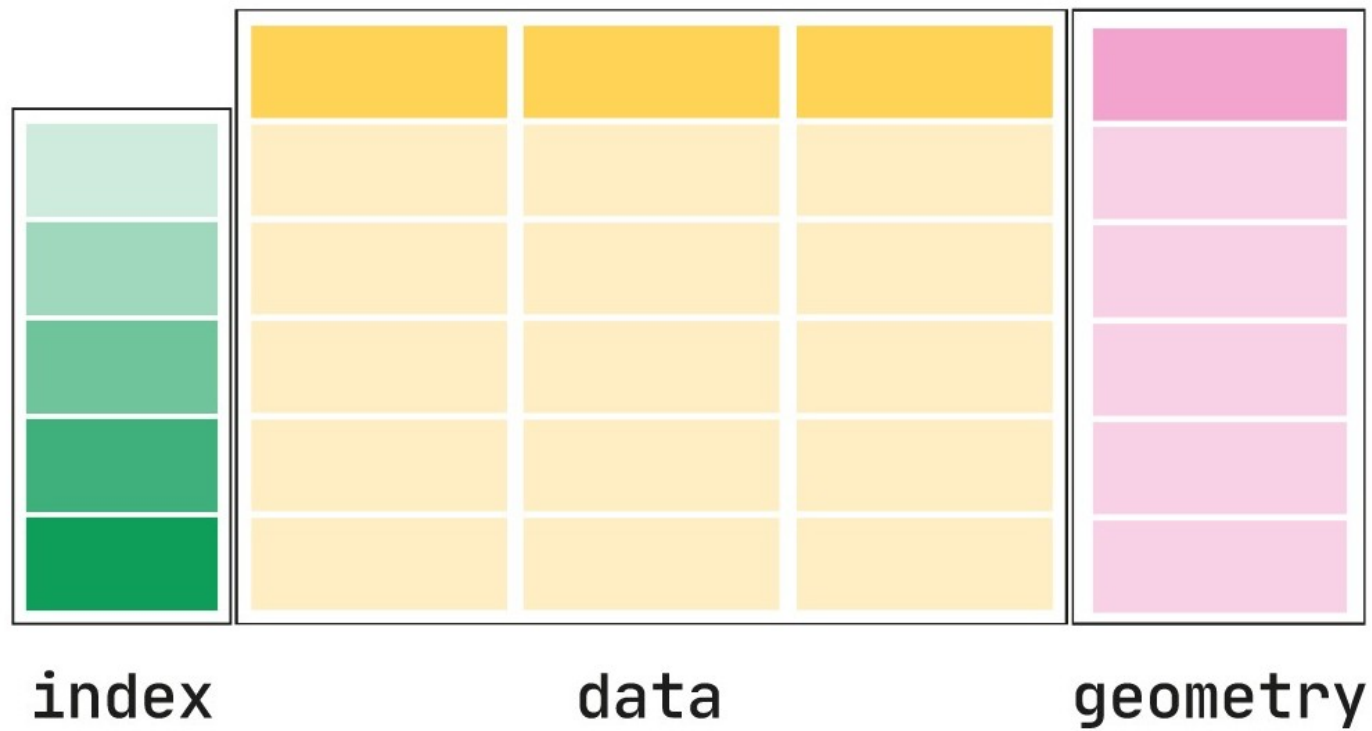


P R Ø J



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Componente espacial



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Modelo de datos

Simple Feature Access



International
Organization for
Standardization



Open
Geospatial
Consortium.



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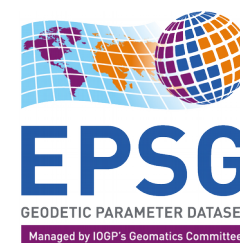
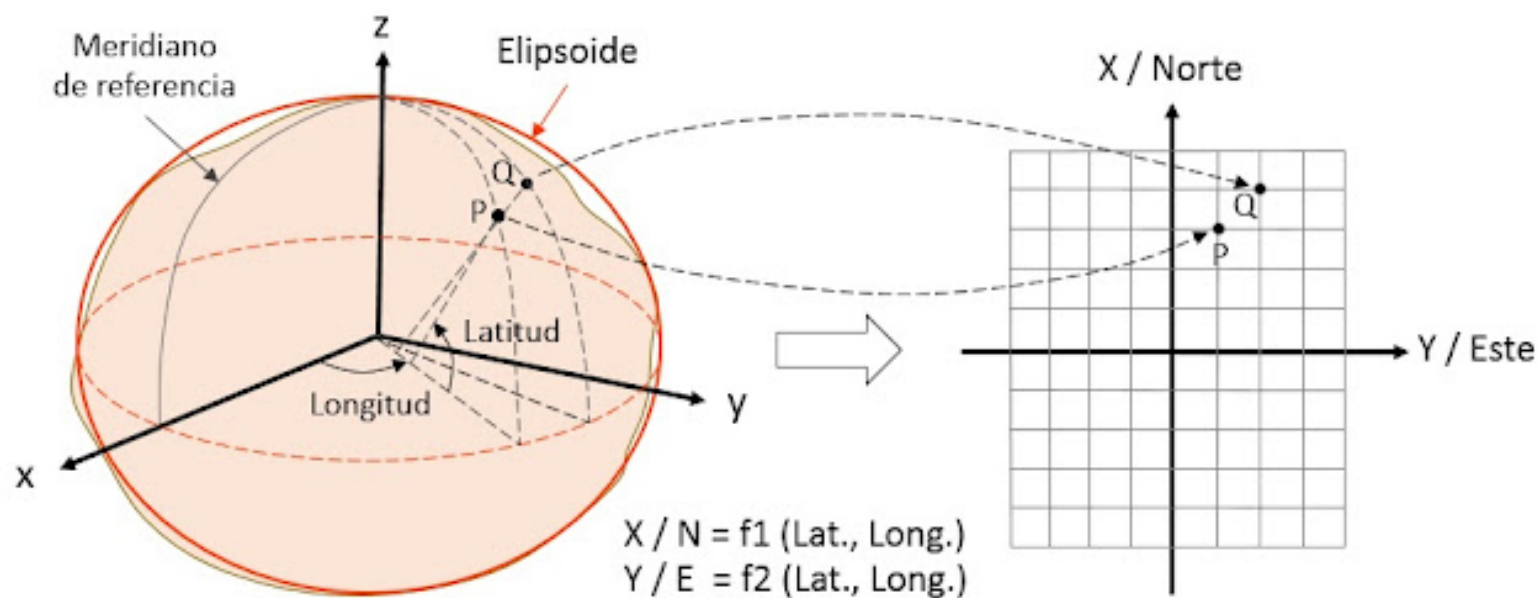
Geometrías primitivas (2D)

Type	Ejemplos	
Punto		POINT (30 10)
Línea		LINESTRING (30 10, 10 30, 40 40)
Polígono		POLYGON ((30 10, 40 40, 20 40, 10 20, 30 10))
		POLYGON ((35 10, 45 45, 15 40, 10 20, 35 10), (20 30, 35 35, 30 20, 20 30))

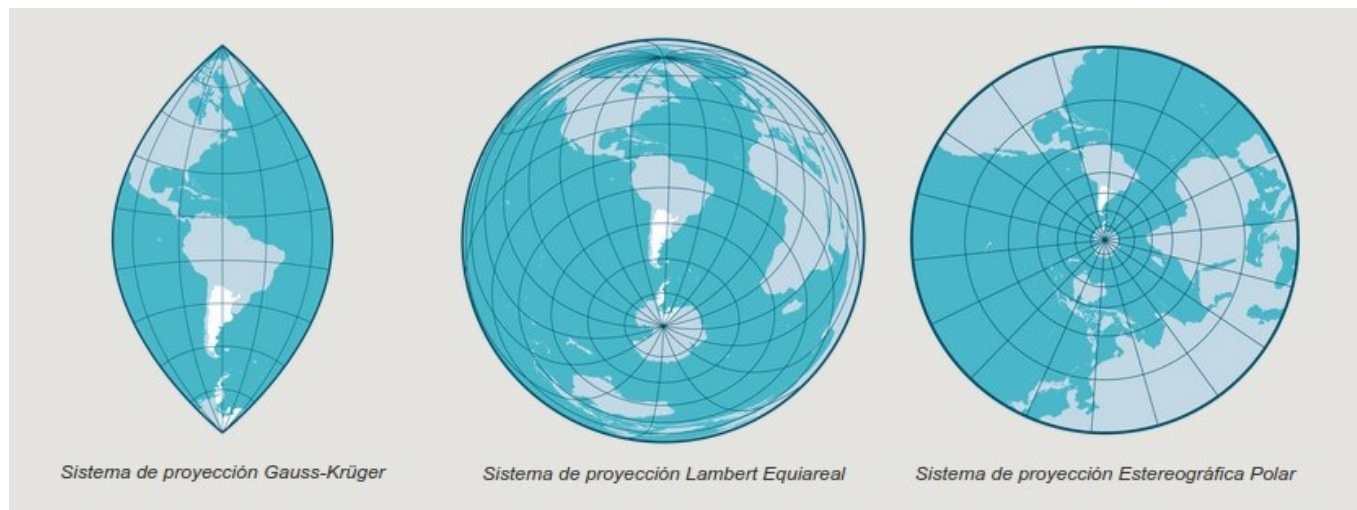
Geometrías multiparte (2D)

Type	Ejemplos	
Multipunto		MULTIPOINT ((10 40), (40 30), (20 20), (30 10))
		MULTIPOINT (10 40, 40 30, 20 20, 30 10)
Multilínea		MULTILINESTRING ((10 10, 20 20, 10 40), (40 40, 30 30, 40 20, 30 10))
Multipolígono		MULTIPOLYGON (((30 20, 45 40, 10 40, 30 20)), ((15 5, 40 10, 10 20, 5 10, 15 5)))
		MULTIPOLYGON (((40 40, 20 45, 45 30, 40 40)), ((20 35, 10 30, 10 10, 30 5, 45 20, 20 35), (30 20, 20 15, 20 25, 30 20)))

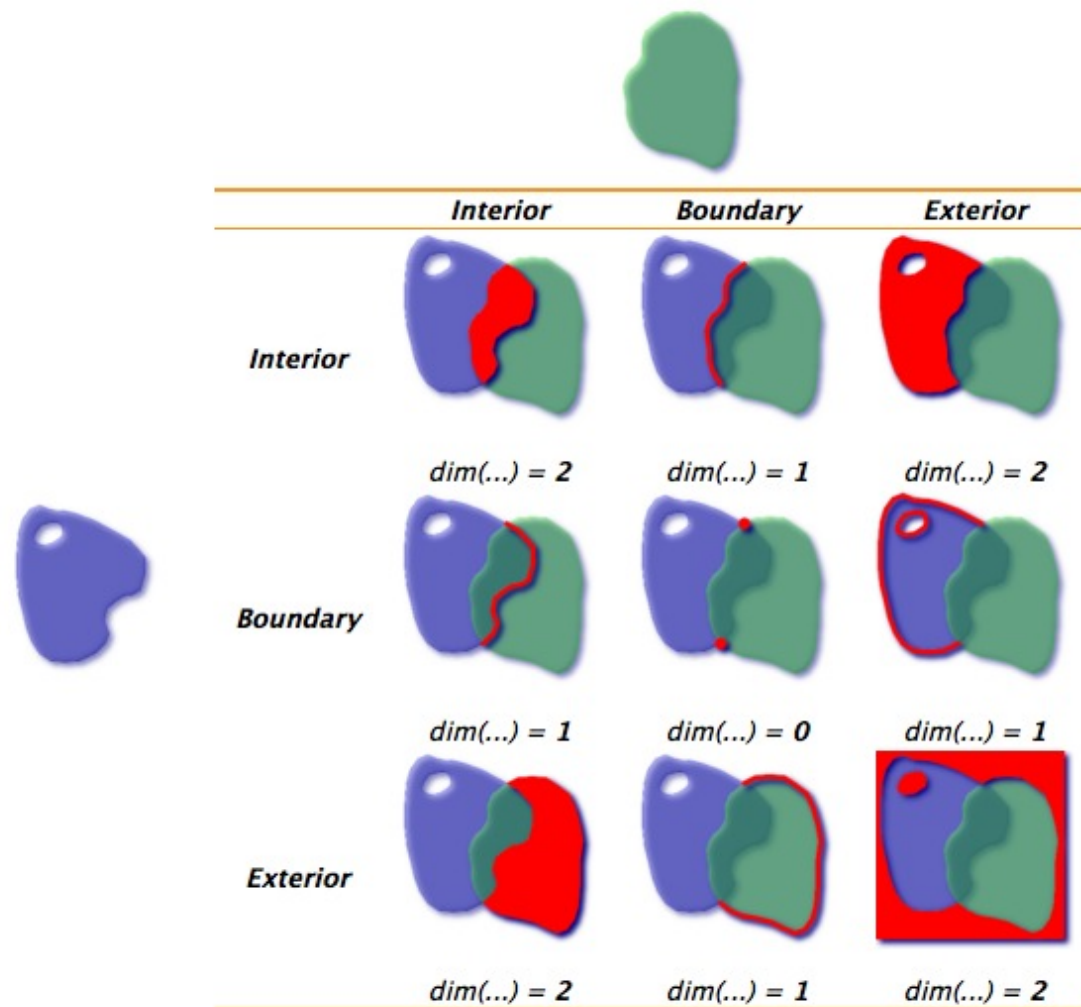
Georreferenciación y Proyección Cartográfica



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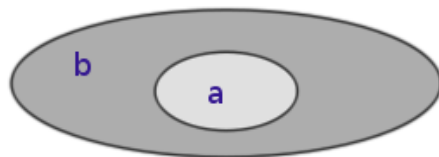
Modelo de Intersección (DE-9IM)



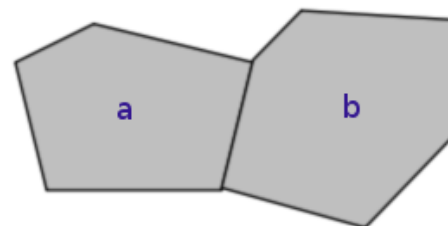
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Predicados espaciales

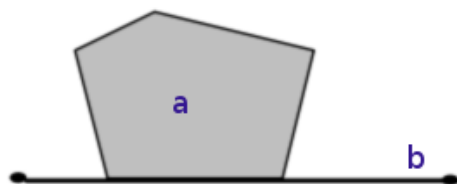
Within(a,b)



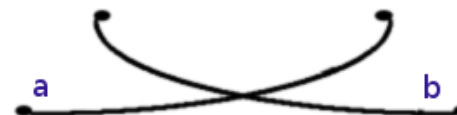
Touches(a,b)



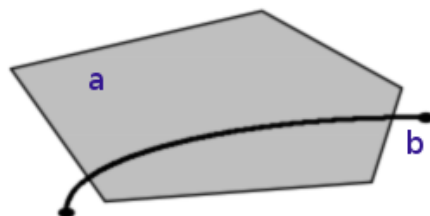
Touches(a,b)



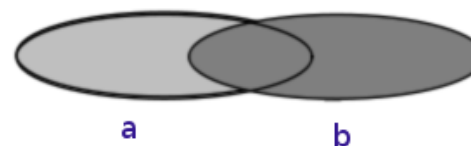
Crosses(a,b)



Crosses(a,b)



Overlaps(a,b)



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Geocodificación

OpenStreetMap

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Results from **Internal**

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-65.4102, -24.7276

Results from OpenStreetMap Nominatim

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Results from GeoNames

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Gracias!



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